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# Adapting Mobile Humanities Interpretation in East Africa

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# Adapting Mobile Humanities Interpretation in East Africa

## Introduction

This white paper shares lessons learned from "Curating Kisumu: Adapting Mobile Humanities Interpretation in East Africa," a project funded by a Digital Humanities Start-Up Grant from the National Endowment for the Humanities. This paper focuses on building a mobile interpretive project in the developing world, drawing upon insights that emerged from our work in Kenya. It is written for humanists and humanities-based organizations seeking to deploy mobile projects in East Africa and the broader developing world. It explores why digital humanities projects have lagged in Africa and suggests approaches for bridging the gap between ambition and successful implementation of such initiatives. In particular, we reference our own goals, approaches, and responses to challenges encountered in adapting *Curatescape*, a mobile interpretive framework developed by the Center for Public History + Digital Humanities (CPHDH), to support a university-based project in Kisumu, Kenya. Although one cannot, without endless caveats, completely generalize an experience in one community to a nation, region, or the "developing world" writ large, we trust that readers will benefit from understanding our project and that, as a result, they will be better positioned when planning their own future mobile interpretive projects in the developing world. It is also important to note that we learned much from our Kenyan partners and our project advisors, whose own ideas and experiences are woven into this paper.[1]

## Background

"Curating Kisumu" sprang from a decade of digital experimentation in research and teaching by CPHDH, most notably the development of *Cleveland Historical*, which provided a model for curating a city as a living museum through the layering of geo-located interpretive narratives, archival film and images, oral history and other audio, and short video documentaries, along with search and faceted browsing, social media, hyperlinks, and web analytics, among other features. *Cleveland Historical*, which consists of a website built on the Omeka open-source content management system (CMS) and native apps for iOS and Android, was released publicly in May 2011.[2] Awarded an Honorable Mention for Outstanding Public History Project in 2011 by the National Council on Public History (NCPH), *Cleveland Historical* has been downloaded more than 20,000 times from the iTunes and Google Play stores and receives over 500,000 unique page views annually on the web. The project has also fostered several years of classroom- and community-based content creation, which has involved hundreds of Cleveland State University students, several cohorts of K-12 teachers, and dozens of community organizations. *Cleveland Historical* has also emerged as the chosen public humanities platform for commemorative projects such as the centennials of the City of Shaker Heights (2012) and Cleveland Metroparks (2017), as well as an interpretive space adopted by organizations ranging from small neighborhood organizations to Destination Cleveland, the city's convention and visitors bureau.

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[1] "Curating Kisumu" project partners included Gordon Obote Magaga and Benard Busaka (Maseno University). Mark Tebeau (Arizona State University) served as project consultant. Project advisors were Gregory H. Maddox (Texas Southern University), Angel David Nieves (Hamilton College), Agnes Odinga (Minnesota State University Mankato), and Tom Scheinfeldt (University of Connecticut). Leonard Odhiambo Obiero, a student at Maseno University, served as a student project coordinator.

[2] *Cleveland Historical*, http://clevelandhistorical.org.

Imagining that this mobile publishing tool could be extended beyond Cleveland, CPHDH developed the *Curatescape* mobile publishing framework, originally titled the "Mobile Historical" project, in 2011-12 with funding from the Ohio Board of Regents, Cleveland State University, and the National Endowment for the Humanities.[3] To date, some forty humanists and cultural organizations have adopted *Curatescape* either as a web-only project (free and open-source) or suite of web and native apps (under contract with CPHDH).[4] *Curatescape*, unlike most other mobile frameworks, emphasizes storytelling as opposed to displaying individual archival objects. Although *Curatescape* can support collections-based interpretation, most users have chosen it for its capacity to tell stories about landscapes ranging from cities and towns to regions and states. In short, *Curatescape* provides an affordable and easy-to-use toolset that empowers small- to medium-sized organizations or colleges and universities to create rich, resonant public humanities projects that invite the public into dialogue about connections between past and present that are embedded in the landscape.

The purpose of "Curating Kisumu," as stated in the start-up grant proposal, was to "offer a lab for adapting the concept, process, and technology [of *Curatescape*] to the particularities of East Africa" with the goal of offering "a viable solution to the challenge of extending leading-edge digital humanities interpretation throughout the developing world." During the eighteen-month start-up phase, our project team created a model collaboration between two universities—one in the U.S. and one in Kenya—to co-curate an East African city and strategize how to rethink both the *Curatescape* platform and process in a very different setting, which promised to highlight important implications for breaking down barriers to extensibility between the highly developed and developing world.

"Curating Kisumu" included three principal activities: introducing an existing platform and process for location-based storytelling (*Curatescape*) in a Kenyan city (Kisumu), creating an institutional partnership between an American university (Cleveland State University) and a Kenyan institution (Maseno University) in which students learned to curate place-based histories for a mobile project, and studying both the setting and the process carefully to determine how it differed from that of American experiences with *Curatescape* and what kinds of modifications in both platform and process were necessary for optimization in East Africa. The grant period lasted from July 1, 2014, to December 31, 2015. During this period, the project team traveled twice to Kisumu to introduce the project, consult in its use, plan for content creation, and examine the setting in which the project would operate. The grant period also included two semesters of content creation (spring and fall 2015) in which small teams of Maseno and Cleveland State students curated twenty place-based stories for the project's *Curatescape* site, dubbed *MaCleKi | Curating Kisumu* (http://macleki.org). (See Fig. 1.) The collaboration continues in spring 2016 with supplemental internal funding. After the experience of the first semester, the project team refined the content creation process, made basic changes to the Omeka-based CMS and file-type standards for ease of implementation and lightening of data consumption, and strategized a plan for building a toolset that would be optimized for both East

[3] *Mobile Historical*, NEH Digital Humanities Start-Up Grant, HD-51456-11, https://securegrants.neh.gov/publicquery/main.aspx?f=1&gn=HD-51456-11; Mark Tebeau, "Strategies for Mobile Interpretive Projects for Humanists and Cultural Organizations," white paper submitted to the National Endowment for the Humanities, March 2013, http://mobilehistorical.curatescape.org.
[4] "Public Projects," *Curatescape*, http://curatescape.org/projects/.

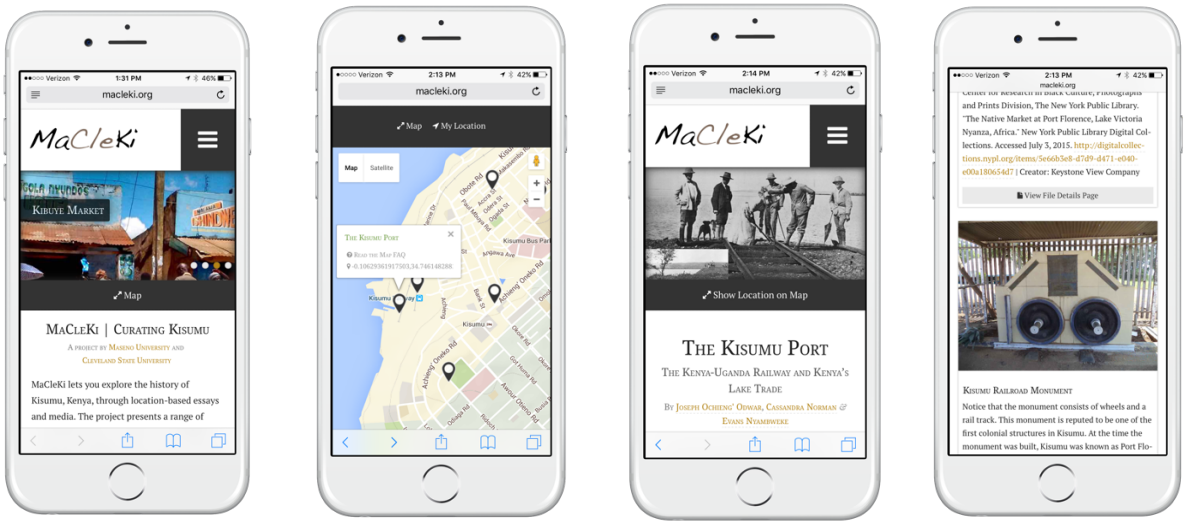


**Fig. 1.** *Curatescape* mobile screenshots. Left to right: Home, Map, Story, Media

African and developing-world settings, broadly imagined. The latter is the subject of a planned implementation phase. In the spirit of reciprocity, the project team also assembled supplemental funding outside the grant itself to bring two faculty and one student from Maseno to Cleveland in September 2015 to participate in a public symposium, give guest lectures, and meet as a project team with our NEH project advisors. The project team also publicized and disseminated results from the grant via social media and conferences.[5]

**The Mobile Revolution and Its Limits in Africa**

The accelerating adoption of mobile technologies has been among the most transformative developments in how people share ideas and information. The *Pew Internet and American Life Project* and *NMC Horizon Reports* have tracked this revolutionary change over the past several years. So-called "apps culture" has saturated not only the United States but also Europe and large swaths of the rest of the world, extending the already-pervasive Internet still further. Between 2000 and 2015, the proportion of American adults using the Internet rose from 52% to 84%. However, the swiftness of the change has proven to be a challenge to humanists, educators, and other cultural workers who often lack expertise and/or resources to keep pace with the rapid evolution of hardware, software, and best practices in the digital age. Not only has the explosion of smartphone and tablet use taxed the ability of humanists to rethink how they convey knowledge and connect to communities, it has sustained concerns about a persistent digital divide, which fractures along age, class, racial and ethnic, and urban-rural lines. Applicants for

[5] Public Humanities and Modern Africa: An Interdisciplinary Symposium, Cleveland State University, September 2, 2015, http://symposium2015.csudigitalhumanities.org; Brad Baer, Carol Harsh, J. Mark Souther, and Jennifer Snyder, "Got Tech? How Small-town Museums and Historical Sites Can Go Digital" (roundtable, Museums and the Web Conference, Chicago, IL, April 8-11, 2015), http://www.slideshare.net/bradbaer/got-tech-how-smalltown-museums-and-historical-sites-can-go-digital; Marla Jaksch, Angel David Nieves, Meshack Owino, and J. Mark Souther, "DH in the Developing World: Reflections on Collaborative Projects in East Africa" (roundtable, National Council on Public History Annual Meeting, Baltimore, MD, March 16-19, 2016), http://ncph.org/wp-content/uploads/2015/11/2016-Baltimore-Meeting-Program-web.pdf.

funding for institutional exhibitions and programs know well the need to demonstrate well-thought plans for reaching underserved audiences.[6]

Just as the presumed ubiquity of the mobile revolution has masked the limits of the democratizing potential of the "information age" in the United States, it has led to similar misconceptions about the impact of such devices in developing countries where a born-mobile Internet revolution has drawn considerable attention. The most common understanding of the inroads of digital technology in Africa tends to focus on Africans' broad and enthusiastic embrace of mobile phones. Over the past decade, much of Africa has gained access to cellular, satellite, and wireless broadband service, particularly along its coastal peripheries, and fiber-optic networks are expanding rapidly in larger cities. Most of Africa leapfrogged the PC era and embraced the Internet via feature phones, and today some African nations match the U.S. in mobile phone adoption.[7]

Nevertheless, look closer and gross inequities present themselves in the mobile landscape. According to a recent Pew Research Center study of seven sub-Saharan African nations, an average of 15% of people owned a smartphone while 65% used feature phones. Feature phones, which can handle placing/receiving calls, SMS (text) messages, taking photos, mobile money transfers (which were invented in Kenya), and, sometimes, limited Internet usage via proxy browser or even basic social media apps, remains popular because they are inexpensive and perform those functions that have become expected on the continent. Smartphones, by contrast, generally remain out of reach for many Africans, especially in rural areas, for a variety of reasons: they cost too much, they use expensive data at too fast a rate, their relatively short battery life requires access to electricity that is costly when it is available at all, and many of their functions require a signal strength (cellular or WiFi) that is often hard to find.[8] Along with a general urban-rural gap in smartphone ownership and Internet usage, however, different countries have wide disparities in Internet penetration despite relatively similar urban-rural population distributions. In this regard, Kenya, according to a recent report, ranked first in Africa in the percentage of population using the Internet, with 69.6% as of November 30, 2015. In aggregate numbers, only Egypt and Nigeria had more Internet users on the continent. However, as was true continentally, one also finds huge disparities in East Africa (defined throughout this white paper as the five-nation East Africa Community, or EAC). Rwanda, Tanzania, and Uganda each had between 14.9% and 32.1% Internet penetration, while a mere 3.7% were online in Burundi.[9]

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[6] *Pew Internet & American Life Project*, http://www.pewinternet.org; *NMC Horizon Report*, http://www.nmc.org/publication-type/horizon-report/; Andrew Perrin and Maeve Duggan, "Americans' Internet Access: 2000-2015: As Internet Use Nears Saturation for Some Groups, a Look at Patterns of Adoption," *Pew Research Center: Internet, Science & Tech*, June 26, 2015, http://www.pewinternet.org/2015/06/26/americans-internet-access-2000-2015/.

[7] Gabriella Mulligan, "Is Fibre Optic Cable Key to Africa's Economic Growth?" *BBC News*, March 31, 2015, http://www.bbc.com/news/business-32079649; "Cell Phones in Africa: Communication Lifeline," *Pew Research Center: Global Attitudes & Trends*, April 15, 2015, http://www.pewglobal.org/2015/04/15/cell-phones-in-africa-communication-lifeline/.

[8] "Cell Phones in Africa: Communication Lifeline."

[9] Internet World Stats, http://www.internetworldstats.com/stats1.htm.

Until smartphones and their usage become more reliable and affordable, many experts agree, rises in Internet usage on the continent may be more gradual than in years past.[10] However, lest anyone assume that digital humanities projects are impractical in much of Africa, it is worth pointing out that a transformation is nonetheless underway. The only question is how fast it is moving. In East Africa, smartphone adoption is expected to soar from 11% in 2014 in more than 50% by 2020.[11] As hurdles to smartphone adoption gradually fall, the present time is ripe for investigating ways to ensure that educational mobile projects, including those based in the humanities, are available to extend the spread of knowledge. As such, our original assumption that it was necessary to develop particular capability to serve feature phone users proved untrue. Our project would instead do better to concentrate on a single type of device—the smartphone—that is almost certainly going to become predominant in a few years.

**The East African Context: Insights from Kisumu, Kenya**

We chose Kisumu, Kenya, as the focus of our effort to investigate the extensibility and sustainability of a mobile-first, public history-rooted digital humanities project for several reasons. First, project co-director Meshack Owino is a native of Siaya County, Kenya, located just west of Kisumu. His interest in playing a role as a content expert with deep connections in western Kenya was of critical importance to the decision to undertake our project. This part of Kenya, as one of our project advisors has observed, is a historiographically rich and historically compelling region. A place-based digital humanities project centered in western Kenya would explore the same region as David William Cohen and E. S. Atieno Odhiambo's seminal book *Siaya: The Ethnographic History of an African Landscape* and potentially introduce a way of thinking about history that serves as a counterpoint to the largely ethnically based understandings of history that prevail both there and throughout the region.[12] It faces Lake Victoria, a longtime nexus for trade and cultural connections throughout eastern, central, and southern Africa. Second, Kisumu is Kenya's third largest city and has a strong base of institutions of higher learning, including our project partner institution, Maseno University. A project such as "Curating Kisumu" would more likely establish a firm foundation if based in a university in a city. Third, Maseno University and Cleveland State University are in some respects similar institutions—mid-sized public universities serving primarily first-generation college students from regionally important metropolitan areas. Fourth, on a purely pragmatic level, concerns about rising levels of insecurity, including ethnic tensions and large-scale terrorist attacks in Nairobi and Mombasa, made Kisumu, with its comparatively stable conditions, seem a more practical place to begin. Fifth, and more broadly, Kenya made sense as a focus because, like Nigeria and Ghana in West Africa, it has emerged as a tech hub in East Africa, which promises advantages for supporting digital humanities work locally and regionally. Kenya has emerged in the past several years as one of Africa's most promising areas for digital technologies. By 2010,

[10] Morgan Winsor, "Mobile Phones in Africa: Subscriber Growth to Slow Sharply as Companies Struggle to Reach Rural Populations and Offer Faster, Cheaper Services," *International Business Times*, October 15, 2015, http://www.ibtimes.com/mobile-phones-africa-subscriber-growth-slow-sharply-companies-struggle-reach-rural-2140044; Kyle James, "Feature Phone and Smartphone Battle It Out in Africa," *DW Akademie*, May 27, 2015, http://www.dw.com/en/feature-phone-and-smartphone-battle-it-out-in-africa/a-18465485

[11] GSMA Intelligence, *The Mobile Economy: Sub-Saharan Africa 2015* (2015), 12-13, https://gsmaintelligence.com/research/?file=721eb3d4b80a36451202d0473b3c4a63&download.

[12] David William Cohen and E. S. Atieno Odhiambo, *Siaya: The Ethnographic History of an African Landscape* (Nairobi: Heinemann Kenya Ltd., 1989); "Gregory Maddox Reflects on the Project," *Curating Kisumu – You Tube*, https://www.youtube.com/watch?v=6t2Q2DRfmjE, 13:23-15:05.

it was already common to hear Kenya, especially Nairobi, hailed as the "Silicon Savannah," although the term was something of a misnomer in that Kenyans were far more likely to be IT developers rather than producers of microchips or other computing components. Kenyans also pioneered mobile money transfers, dominated by the popular M-Pesa service, and drew attention for their Ushahidi project, with its innovative use of mobile-based, crowdsourced mapping of violence during the convulsive aftermath of the country's 2007 elections. In fact, the post-election crisis in Kenya provided a significant stimulus to blogging and social media at a time when Kenyans were looking for independent opinions and assessments of events, so much so that the Kenyan government also began to embrace the same channels for communication.[13] Finally, with more than thirty public universities, Kenya also seemed to offer a place where a growing network of *Curatescape* projects might emerge, and Maseno University, with its significant progress in developing its online presence, seemed an especially good starting point.

**Project Planning Considerations**

In this section we relate some of the realizations that emerged from the process of initiating and carrying out the "Curating Kisumu" project. Our examples are Kenyan but can surely apply to some degree to other settings. Some of these insights should be pertinent for anyone seeking to start a mobile digital humanities project in the developing world, but by necessity our commentary revolves most closely around the establishment of a project rooted in an international collaboration in East Africa. It turns out that, for a variety of reasons, such an approach is likely to remain an effective model for tackling the challenges that face such work in the near term. Pairing an American institution and an African one need not result in an inequitable relationship in which expertise and cash must flow from the Global North to Global South in order to achieve success. Yet, working in a context such as East Africa, one must acknowledge an unevenness in what people and institutions bring to the table. A successful project requires a careful assessment of the strengths and resources that each partner can offer for the good of the collaboration and strategies for ameliorating weaknesses.

Many humanists and institutions in the developing world look favorably on collaboration. On one level collaboration can provide much-needed funding. Collaboration can also facilitate access to new methodologies and technologies. It can also enhance institutional research profiles, build scholars' academic stature as it provides important professional development opportunities. As is true across nearly all of sub-Saharan Africa, many East African universities today have primarily younger faculty who may still be pursuing their Ph.D.'s. Many of the faculty hold adjunct positions and/or travel to multiple campuses as part of or in supplement to their primary institution. It is not uncommon to find faculty teaching six or seven days a week, and teaching loads often outstrip even those in American community colleges. As an example, our project partners at Maseno University were teaching eight or nine courses per semester. Not surprisingly, under the weight of so much teaching, other forms of professional development, including conferences, publications, digital humanities projects, and completion of higher degrees are difficult to accomplish. An extensive curriculum vitae is a hard-fought battle. Given the heavy teaching loads that one tends to find in East African universities, anyone considering a collaborative project and/or building a digital toolset such as a mobile framework must be especially attentive to need for tasks and tools that enhance a faculty member's existing

[13] Jake Bright and Aubrey Hruby, "The Rise of Silicon Savannah and Africa's Tech Movement," *TechCrunch*, July 23, 2015, http://techcrunch.com/2015/07/23/the-rise-of-silicon-savannah-and-africas-tech-movement/.

academic work and do not add significant additional work to implement. This is one of the biggest challenges when doing a digital humanities project in East Africa.[14]

Anyone contemplating a collaborative digital humanities project in the region (or elsewhere in the developing world) would be well advised to learn as much as possible early in the process about the burdens under which their colleagues labor. It is important to deemphasize financial remuneration for contributing to a collaborative project while also understanding a country's prevailing salaries and wages.[15] As with any grant-funded work, one should assume that everyone involved in a project will expend more effort than what they can reasonably expect to charge to a grant. Grants seldom completely compensate our time. Funding for web or app development and design or buying out a substantial percentage of one's time during an academic year carries a price tag that may easily exceed the annual salary of an average university faculty member in East Africa. Rather than focus on monetary compensation, it is worth directing potential partners' attention not so much to honoraria (though these are appropriate and necessary) as to more intangible benefits. The following are the kinds of questions one should ask when crafting a project collaboration in the developing world:

- Does the project provide a new digital tool or toolset?
- Does it offer technical training that builds new proficiencies?
- Does it provide some vehicle for enhancing the scholarly or other cultural work that a project partner may be doing?
- Does it promise access to specialized technical assistance and support?
- Does it offer opportunities for professional development through travel, conference or symposium participation, or publication?

Before initiating a project, one must also become familiar with the cultural, bureaucratic, and legal considerations that may make working in a location different and more challenging. Sometimes cultural differences may produce some slippage between partners' respective expectations. Yet one should be careful not to make cultural assumptions about real or perceived differences. For example, we noted that meetings in Kisumu rarely started at the appointed time, especially when they involved many people. Although even many Africans may quip, in echo of old stereotypes about the Global South, that they are on "Africa time," it is well worth taking time to understand more precise reasons that often produce delay: among the most notable, feelings and expectations of mutual obligation within extended kinship networks often prompt people to rearrange their own plans to help one another as situations arise. Meetings, therefore, often begin because all parties have arrived, not because the clock shows a pre-appointed time. As a second example, if one does not receive responses to emails or texts that are as detailed or as prompt as is often the case in a country in which many people rarely if ever disengage from

[14] Here we draw upon conversations with our project partners and advisors. For context, see Paulos Chanie and Paschal B. Mihyo, "Doctoral Studies in Sub-Saharan Africa and the Planned RESSESA Intervention," in *African Dynamics in a Multipolar World*, ed. Ulf Engel and Manuel João Ramos (Leiden, Netherlands: Brill, 2013), 118-43; Chika Sehoole and Emmanuel Oluseun Ojo, "Challenges and Opportunities for New Faculty in South African Higher Education," in *Young Faculty in the Twenty-First Century: International Perspectives*, ed. Maria Yudkevich, Philip G. Altbach, and Laura E. Rumbley (Albany: State University of New York Press, 2015), 253-84.

[15] On faculty salaries in East Africa, see "Lecturers, Education Ministry Agree New Salary Structure," *New Vision* (Kampala, Uganda), February 8, 2015, http://www.newvision.co.ug/new_vision/news/1320414/lecturers-education-ministry-agree-salary-structure.

their mobile devices and enjoy regular access to personal computers, it is not a symptom of a slower pace of life. Rather, as in Kenya, it may reflect challenges associated with dependence on mobile devices. Where very few people own personal computers, the mobile phone is usually the closest approximation to a computer at hand. Often it is *not* a feature-rich device that might facilitate fast typing. The reliance on prepaid data in small bundles, chronic disruption in cellular service, loss of battery charge amid power failure or inaccessibility of electrical outlets, or other common issues may be to blame.

Beyond perceived cultural differences, there may be and often are bureaucratic realities that are somewhat unusual to outsiders. In East African countries, for example, one should expect—either before or after submitting a grant proposal—to enter into a memorandum of understanding (MOU). Crafting an MOU on the front end of a project necessitates imagining the sorts of details of a partnership that one cannot always so readily glimpse, let alone easily bring into sharp focus, but it is critically important to be strategic in creating such a document. An MOU is an opportunity to lay a firm foundation that crystallizes mutual understanding of the responsibilities and the rights that each partnering institution may expect. Because the MOU process sometimes involves consulting university policies governing international institutional agreements and almost always requires the involvement of legal counsels and administrators with signatory authority at least two institutions that are sometimes oceans apart (not to mention sometimes involving places where English may not be the first language), it is essential to allow ample time for execution before a proposal deadline or the desired commencement of project activities. If a project entails visits to another country, one may also assume that a ceremonial exchange of MOUs could be among a project partner's expectations. MOU exchanges are an opportunity for celebrating linkages that enhance institutional prestige and thus are often seen as appropriate moments for ceremony. Sometimes, as in our case when visiting Kenya, obtaining a signature ultimately required two separate appointments. Project directors should build more time into their itineraries than may seem necessary as local customs often include expectations of moving very gradually from pleasantries toward the heart of a matter. In short, meetings often begin in earnest late and run longer than expected.

**Technological Considerations**

Any digital humanities project undertaken in the developing world, even in many cities where more reliable cellular and WiFi service is expected, must be prepared for technological problems. In our experience in Kisumu, for instance, when WiFi connectivity was available (in a few limited hotspots on campus), it was sluggish and times virtually unusable. Download speeds approximated those of lower-end Internet service in the United States. Even in international-standard hotels, WiFi operates at speeds slower than those to which many Americans are accustomed. Although we did not experience them during our trips to Kenya, blackouts are all too common in much of East Africa. It is not unusual for electric failures to last for several hours or even a day or more. Such considerations go far in explaining the utility of feature phones with long battery life and battery-extending modems such as BRCK (http://brck.com), which was developed in Nairobi, Kenya, in response to problems of unreliable connectivity and electricity.[16]

[16] John Cary, "Made in Kenya, Assembled in America: This Internet-Anywhere Company Innovates from Silicon Savannah," *Fast Company*, September 4, 2014, http://www.fastcoexist.com/3035137/change-generation/made-in-kenya-assembled-in-america-this-amazing-internet-anywhere-router-c; Heenali Patel, "Could This Little Black Box

Innovations like BRCK could overcome difficulties in creating classroom lab settings for collective online work, but they cannot replace mobile humanities projects' need for careful project management and platform development.

Some of these problems cannot be overcome through project design or process and await eventual relief as technological infrastructure advances in the region. However, anyone designing a mobile project in East Africa and indeed elsewhere in the developing world would do well to give careful consideration to some of the most rudimentary factors that shape user experience. This is not to say that design of websites and apps must be undertaken in a different manner. Rather, the architecture of the platforms and content to be assembled on them require attentiveness to both how content will load and what its rendering means for users' consumption of data. As suggested earlier, most mobile users consume data in small chunks. A typical telecom airtime scratch card or data bundle in Kenya may offer between 5MB and 30MB and cost between US$0.05 and US$0.30. Many users consume the smaller 5MB denominations as fast as they can afford to replace them and must balance voice, data, and SMS with the cards.[17] Needless to say, smartphones quickly consume such small amounts of data, hence the enduring popularity of feature phones. Accordingly, a digital humanities project that seeks to reach the typical East African smartphone user must first acknowledge that the "market" for humanities content via web or app remains small, although as already suggested that is changing with each passing year. With data costs still a deterrent, social media remains the coveted luxury alongside necessities like texting or mobile money transfers. Second, a project should take steps to tailor its content to this reality. As such, streaming video and audio probably cannot be the focus of a project because such media consume large amounts of data.

As we imagined ways of leaving a lighter data "footprint" in our project, we identified a series of necessary actions. First, we identified a standard for image files that attempts to balance the need for low data consumptive online experiences with the need for images to render satisfactorily on the larger screens that many people in more affluent countries may have. Accordingly, we opted for 70KB files sized at 1,000 pixels. The larger aspect ratio provides a minimally acceptable image quality for desktop users, while the the file size consumes little data. We do not anticipate featuring many audio or video files, but to the extent that we do, we will need to develop a similar standard that minimizes file size, in part by optimizing compression and in part by limiting clips to a much shorter duration (perhaps never more than 30 seconds) than for a project whose main audience is in the United States.

Second, we adopted aggressive caching of content. While much attention in mobile projects in low- or no-connectivity areas has centered on provision of offline access, such a feature, while useful, would not completely avoid a fundamental problem. Many East Africans do not live in places with reliable WiFi connections that would encourage or even enable downloading content for offline use in the field. Perhaps a better approach is to ensure that content is served in such a manner that, wherever and however it is loaded, it may be revisited without incurring further data usage. Thus, our approach was to increase the time that source files and visited content are

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Beat Facebook in Race to Connect Africa?" *CNN*, January 14, 2016, http://www.cnn.com/2016/01/13/africa/kenya-tech-startup-internet-innovation/.

[17] "Small Data Bundles Drive Significant Internet Usage Across Kenya," *Coastweek* (Mombasa, Kenya), February 1, 2016, http://www.coastweek.com/3905-Small-data-bundles-drive-significant-internet-usage-in-Kenya.htm.

cached from 10 to 100 days. We also modified the public display to show smaller, derivative images by default, rather than the larger original files.

Third, as we restructured the *Curatescape* data model (moving to custom item type metadata fields to enable more precision than the default Dublin Core fields), we also added basic instructions for creating and editing content. These instructions appear as part of the admin item form, providing users with immediately accessible guidance, as well as links to more in-depth documentation. One of the key challenges with *Curatescape* has been to fit its narrative-based data model into Omeka's metadata-based user interface. Due to our unconventional use of Omeka to craft narrative content, we made a number of surface-level modifications to various areas of the admin interface in an attempt to simplify and explicate the content-creation process. Nonetheless, there are still some aspects of the interface that we cannot change due to concerns about sustainability (i.e. we do not want to reinvent Omeka's core user interface, nor devote significant resources to modifying something that is likely to change significantly over time). For this and other reasons, we are exploring alternative content management systems that may be more natural choices for the types of data that *Curatescape* projects produce.

The above actions suggest a broader strategy that producers of mobile-first projects in the developing world should consider. Although our workflow necessarily focused first on innovating modestly within the CMS we currently use, anyone who is investigating a new project should look carefully at CMS options and choose based on close consideration of the intended audience, setting, and structure of the project. A "soup to nuts" development plan would involve choosing a CMS and developing content standards in tandem.

**Mobile Humanities Curation in the Developing World**

At the outset of "Curating Kisumu," our team assumed that native apps would be an essential part of our effort to optimize *Curatescape* for use in Kenya and East Africa. We also anticipated that we might encounter region-specific expectations about content, media, and user experience. Finally, we anticipated iterating on the current Omeka-based *Curatescape*.

We quickly became disabused of the first assumption. Native apps remain highly popular, particularly in highly developed nations. Although advances in responsive (web) design using the HTML5 standard have in many ways narrowed the gap between mobile web and native apps in terms of performance on mobile devices, it is true that native apps continue to lend cachet to a project and often serve as something of a credentialing consideration for a project. A project that involves apps continues to be seen as somehow more cutting-edge than a web project and may generate greater publicity and fundability than a web project might, but this shows some signs of changing. It is worth noting that recent projects such as the Roy Rosenzweig Center for History and New Media's *Histories of the National Mall* (http://mallhistory.org) have eschewed native apps in favor of responsive design as a means of bolstering sustainability.[18] If the goal is to create a strong, lasting mobile-based project in settings like Kenya, one that can be fully

[18] Sheila Brennan and Sharon Leon et al., "Building Histories of the National Mall: A Guide to Creating a Digital Public History Project," Roy Rosenzweig Center for History and New Media, October 2015, http://mallhistory.org/Guide/wp-content/uploads/2015/10/BuildingMallHistoriesGuidebook.pdf. Note: This guide addresses the option of creating a placeholder app that may be submitted to the app stores to enhance discoverability and mitigate concerns that a project must have an app for visibility.

administered without resort to continuing infusions of precious cash, native apps as a stimulus to funding opportunities recedes in importance. Better to build something that you don't need to return repeatedly to funders to maintain in the first place. You can always build a web app with an HTML5/CSS/JavaScript-based kit such as Google's Polymer or Ionic and even use tools like Apache Cordova or Adobe PhoneGap to wrap it as a native app for multiple platforms (a plus in a setting such as East Africa where, despite Android's rise, there remain many potentially viable competing mobile platforms), but it is worth bearing in mind that releasing an app to the major app stores is a process in itself, one that poses challenges for institutions if they are unable or unwilling to agree to Apple or Google developer terms and/or are not ready to tackle the process of submitting apps.

In any case, the preference for an installable app of any kind, let alone native apps, was simply not a major desire on the part of our partners at Maseno University. Their main wish was for a more easily sustained means of delivering content as closely as possible to the existing *Curatescape* model. While native apps can provide a superior user experience through their intuitive and streamlined interface and do not necessarily consume any more data, they are problematic from the standpoint of sustainability. App-side updates and bug fixes often require either outside technical support, which carries a hefty cost, or access to a degree of specialized expertise that prospective project adopters at few East African institutions appear to possess. Either way, native apps are unlikely to provide functionality whose benefits outweighs the costs associated with upkeep—costs that fall with greater weight in regions where institutional support and grant opportunities are less robust than in the United States. Added to that, the realization that an East African project would not be fundamentally different in its composition from our existing *Curatescape* projects in the highly developed world meant that no particular innovation on the app side of *Curatescape* would be needed.

Before the close of our start-up grant, it became clear to us that the types of innovations that would make *Curatescape* more useful and attractive in the developing world were the kinds that fell on the server side of the project. Native apps that are content-based essentially reskin content served from a web-based CMS rather than standing alone because standalone apps must load and store all content, making them inappropriate for any dynamic project that requires easily adding and affordably serving media. And, in a region in which cost is an especial concern, native apps are at most an optional add-on where institutional budgets permit.

Much more critical than concerns about optimal user experience from a design standpoint (concerns that often favor elegant native apps) are the aforementioned concerns about content loading efficiency and data consumption, as well as important considerations that stem from project managers' likely constrained time and inclination to adopt a project in which data inputs on the administrative side require some degree of training. While efficiency and data usage, as previously noted, may be controlled through adoption of file optimization standards and aggressive caching, admin side inputs need to be especially intuitive and easy. The Omeka-based *Curatescape* framework as currently constituted requires a workflow that is parsed across several separate menus: Dublin Core, Item Type Metadata, Files, Tags, and Map.[19] The Omeka dashboard also includes a lot of "noise" in the form of many other menu items that the average

[19] Erin Bell, "Anatomy of a Curatescape Story," https://github.com/CPHDH/Curatescape/wiki/Content-Layout-Guide.

user does not need in order to input the media that constitute a *Curatescape* item (also known as a site or story). Because Omeka was created to privilege the creation of online archival collections rather than to support location-based narratives that assemble electronic "objects" (text, images, audio, video) into multimedia narratives, it is not very malleable in terms of simplifying user inputs and workflows.

Likewise, updates and bug fixes in the current *Curatescape* require regular attention from a technical administrator. Not only does Omeka release periodic updates, individual plugins must be altered from time to time to prevent their "breaking" as updates are undertaken. The present version of *Curatescape* combines several plugins, which creates a lot of moving parts for an administrator to track. Though not beyond the expertise of those in any particular region of the world, it is nonetheless true that our goal in optimizing a mobile framework for East Africa and the developing world must not assume access to the level of oversight that accompanies the services provided by an organization such as CPHDH via contractual relationships with project adopters. In order to build mobile humanities projects in the developing world, there must be an easily initiated, easily used, *and* easily maintained platform in order to provide reasonable assurance of sustainability. Put simply, anyone expecting a sustainable mobile project in most of Africa and the broader developing world needs to provide a streamlined admin user interface on an easily updated, easily managed CMS. Whether apps are involved is, for the most part, completely beside the point. As with the initial development of *Cleveland Historical* and the *Curatescape* framework, it almost goes without saying that choosing an open-source CMS that can leverage a wide community of developers and users is strongly recommended. Further, to an even greater degree than in the U.S., in Africa and the developing world it is important to weigh the pros and cons of modularity carefully. Modularity is a benefit associated with open-source CMS's such as Drupal, Omeka, and WordPress. The ability to add plugins can optimize both administrative and end user experience and provide critical functionality, but it comes with some hidden costs. For all its benefits, modularity also introduces the inevitability of greater maintenance as a single plugin's failure can hobble an entire site. For our work in East Africa, we have identified building a single-plugin version of *Curatescape* as a low-maintenance, easy-to-use alternative in places where cost and technical expertise are concerns.

In addition to technical considerations, humanities curation in the developing world also demands sensitivity to questions of approach and voice. "Curating Kisumu" and indeed the entire ethos that undergirds *Curatescape* as a framework privileges an interpretive construction that elevates place itself to a position of primacy. Our approach—which melds geo-location, aggregation and layering of multiple media, identification of specific narratives with broad themes, and encouragement of collective interpretation—creates the kind of content that resonates well in an American context but may be muffled in other settings. In the Kenyan setting, for example, ethnicity is a central construct. It determines identity and belonging, as well as access to or withholding of opportunity. Ethnicity is historically bound up tightly with place, with the Luo predominating in much of western Kenya, including Kisumu. Despite the expected introduction of greater diversity as people continue to move in large numbers from rural or village homes to take up residence in cities as a means of gaining access to better jobs and upward mobility, inter-ethnic conflict exerts a dampening effect on the nation-building enterprise, one that was exacerbated by colonialism and continues to reflect its fraught legacy. Ethnocentric understandings of history are both antithetical to the notion of place and,

paradoxically, interwoven with place as a foundation for constructing understandings of the past.[20]

Our project builds upon spatial understandings of history and thematic layering and interconnection through interpretation itself and the application of a controlled vocabulary of subjects and tags. As suggested above, such an approach cuts against the grain of popular explanations of history and thus carries some risk of being either ignored or criticized. However, the very notion of "curating landscape" need not be seen in opposition to ethnic understandings of the past. Rather, ideally, curating the landscape and disseminating place-based humanities knowledge might be viewed instead as an opportunity to integrate traditional African and academic approaches to understanding the past. In this way, mobile projects may foreground place while also incorporating and complicating ethnocentric stories about the past. Our initial sense from responses on social media suggests that the project is well received, which in itself may reflect a persistent urban/rural divide in which worldviews correlate with proximity to socially diverse settings, namely cities.

Likewise, public humanities projects like "Curating Kisumu," through both their broad-based conceptualization, potential involvement of many authors (especially if social media is used for public engagement and dialogue), and tailoring for wide use on mobile devices, have the potential to circumvent and obfuscate traditional flows of knowledge, within which are deeply embedded power structures. While this notion has become increasingly acceptable in the United States over the past couple of decades as public humanities methodologies and digital media have remolded what it means to create and disseminate knowledge, it is still a newer, less fully accepted practice in many places, including in many parts of the developing world. Not only do projects that bring to bear a multiplicity of perspectives challenge traditional academic understandings and practices, they also have the potential to disrupt one-way flows of information that may have been traditionally controlled by government officials through either affiliated or at least loyal media channels. It will come as no surprise to any historian that control over history holds inherent power. Thus, the very idea of a "shared authority" that would value research, storytelling, and curation by the broad public is a potentially radical one even if it is not unlawful.

Interpretive mobile projects in the developing world, like projects elsewhere, ideally consider questions of ownership and voice and further local cultural production. Where will a collaborative project be based and managed? Whose voices are heard in determining themes, places, approaches, topics, authorship, and public engagement? What language(s) will be supported? To the extent that the broader public is to be not simply an audience but an active agent, how can a project engage the public meaningfully and productively, balancing the interests of project directors and those they seek to engage? Although it is impossible to generalize about many of these considerations, our experience from "Curating Kisumu" in the

[20] "Curating Kisumu" project advisor Gregory Maddox (Texas Southern University) points to a similar ethnicity-based understanding of history and place in Tanzania. See "Gregory Maddox Reflects on the Project," *Curating Kisumu – You Tube*, https://www.youtube.com/watch?v=6t2Q2DRfmjE, 12:15-17:05. For a fuller treatment, see Gregory H. Maddox and Ernest M. Kongola, *Practicing History in Central Tanzania: Writing, Memory, and Performance* (Portsmouth, NH: Heinemann, 2006).

start-up phase offers a useful vantage from which to offer some preliminary thoughts that both detail our experience in a single location and suggest wider application.

In developing "Curating Kisumu," we took cues from *Cleveland Historical*. Given the many obstacles to creating and sustaining a digital humanities project and our hope that a project might become deeply embedded locally rather than being one more project about Africa but not in Africa, we decided that a university academic department was a realistic starting point. It promises structure, expertise, and continuity that are not so easily available in many other places. As in Cleveland, where university students curated the majority of stories for *Cleveland Historical*, we posited that in a very real sense a public university classroom cannot be blithely categorized as "academic" as opposed to "public." Like Cleveland State University, Maseno University in Kenya draws primarily first-generation college students. The students at Maseno come from a wide range of backgrounds, but many of them see their university education as a stepladder out of poverty. Although they do not necessarily reflect the full range of Kisumu's people, Maseno students are in a real sense part of "the public"—they arrive from and return to the broader community and never experience quite as much cloistering as we often see in selective American and European universities.

Regarding the matter of ownership and authorship, these are important matters to consider. One of the arguments we made for our project very explicitly in our initial NEH start-up grant proposal was that our project would "advance the digital humanities *with* and *by* Africans, not *for* Africans." Although the proposal simply stated that Maseno would "retain full use of its app," this presupposed that we would develop native apps for the project. The aforementioned MOU with Maseno University spelled out the relationship more clearly, specifying that Maseno University would be the sole owner of its content, which was an important gesture to make in the interest of tipping the scales toward local control. However, in practice, the project is more nuanced. The partnership, which both universities value, has brought a sense of ownership on both sides. Put simply, we and our partners feel mutually invested in and mutually accountable for the project's future. While Maseno University legally owns the content, in every other sense (including its acronymic name *MaCleKi*) the project reflects collaboration. CPHDH currently covers hosting—a modest expense that is folded into a hosting service to which we already subscribe and offer to a number of contracted *Curatescape* partner sites. CSU students under Meshack Owino's direction provide much of the secondary research context for the content itself, a reflection of their greater access to such materials than their Kenyan counterparts enjoy. Conversely, Maseno students directed by Gordon Obote Magaga and Benard Busaka take advantage of their own proximity to the sites about which stories are curated as well as to informants and primary documents. The relationship moves beyond first-world/developing-world disparities in access to knowledge by bringing both sides into close conversation and sharing of materials and knowledge. Regardless of the overarching project ownership, all faculty involved claim this project as a valued part of their scholarship, teaching, and/or professional development. Students on both sides claim the project through the bylines on each story that signify their contribution. We have developed a system in which we randomly assign first authorship except in cases where all parties acknowledge the greater contribution of some particular student. Doing so invests all students in the project by offering the possibility of public recognition of their work and attempts to create balance in the spirit of international exchange. On *MaCleKi* itself, the copyright lists Maseno University first but also includes Cleveland State

University. Ultimately, while it would be heartening to see a project such as ours originate in an East African university, perhaps the more important goal for which to strive is, in all ways, to place the African perspective at the heart of a project even when outside contributions are inseparable from the project.

The question of how to engage a wide audience with a university-based project is one that has a multipart answer. On one level, doing so requires encouraging student authors to adopt a publicly accessible writing style. As in the United States, Kenyan academe tends to foster formal academic writing. It is useful, when possible, to involve students who have taken a public history course or some other such course that emphasizes broadly accessible knowledge. In our experience, particularly during the first semester, students tended to try to pare down research papers without altering their tone and presentational style, which unsurprisingly also yielded rather didactic digital pieces. The stories generated in the second semester were decidedly livelier, on the whole, and sometimes employed descriptive "hooks" and other rhetorical devices to build reader interest. We continue to struggle to balance the importance of finding an appropriate and consistent "voice" for the project as a whole and leaving latitude for individual student teams' voices to be heard. As any public humanist who works with students knows well, such concerns are hardly unusual, and many seasoned academics remain similarly oblivious. Just as it took a number of semesters for one of us (Souther) to refine the introduction and management of student research and writing for a public audience here, we might reasonably expect that our Kenyan partners will continue to refine their approach as well. Viewed in a different light, even if some of the curated pieces do not achieve the desired tone, they fill a tremendous gap in publicly accessible interpretive humanities content in the region. It is encouraging that more than 55% of *MaCleKi*'s users are Kenyans, which suggests that the project is finding an audience for whom the content helps frame the way they view the places around them.

Language may be another important factor to consider when contemplating a project in the developing world. In East Africa, for example, English predominates in Kenyan universities, and it is widely understood in Kenyan cities and, to a lesser degree, even in many more rural areas. Kiswahili is another widely spoken language but is clearly secondary to English on the Internet. More localized native tongues such as Dholuo, the language of the Luo people who comprise a large proportion of the residents of Kisumu and surrounding counties, are seldom used online even though they are commonly understood and spoken in daily life. Among the literate, it is very common to find trilingualism: English + Kiswahili + Dholuo. On the advice of our project partners at Maseno University, we concluded that English was sufficient for administrative-side inputs in Omeka and that in most cases English was also satisfactory as a display language on the front end.

Even if it proved nonessential in Kisumu, planning for support of a particular language or languages beyond English raises important questions about not only access and reach but also appropriate digital tools to handle multilingual inputs and/or displays. It is possible that future additions of audio clips from oral histories might be in Dholuo with either English transcription in captioning or audio translations provided as an addendum to each clip. As we anticipate scaling the project regionally, we will certainly face a less clear answer in places like neighboring Tanzania, where Kiswahili is either the first or second language for a vast majority

of Tanzanians. Although at present we do not see the benefits outweighing the costs of customization to provide multilingual input and output fields, our envisioned work in Tanzania will certainly prompt conversation about how to serve the 85 percent of Tanzanians who speak Kiswahili but not English. We can foresee bilingual content with the text appearing in duplicate in each input field, but at bottom the decision should respond to recommendations by project adopters in the country.

Through their enhanced ability to engage the public, mobile humanities projects have the capacity not only to enable broader dissemination of academic humanities interpretation but also to engage public discussion about the meaning of places and continuities from past to present. We brought to this project certain assumptions from the experience of several years of building *Cleveland Historical*. That project garnered public attention at its inception from its then-novel use of mobile apps as a way of enabling the broad public to experience place in enhanced ways simply by carrying their mobile phone with them as they moved about the city. As the Cleveland project developed, it provided a foundation for ongoing partnerships with historical societies, neighborhood organizations, park systems, and other cultural groups. Some of these involved organizational support for student research and curation, while others provided opportunities to engage community volunteers in curating content themselves. A number of these endeavors led to public presentations, walking or bicycle tours, and new collections of content that enhanced organizations' programming. It seems possible to create similar linkages in Kisumu and other places in East Africa, but it will be more difficult if not impossible to fund content creation by students through stipends due to a dearth of funding sources. However, as in the U.S., community linkages promise to provide connections to new sources of knowledge. To that end, our project team has begun planning collaborations with the Kisumu County Ministry of Education, Culture, Youth and Social Development and the Kisumu Museum, a unit of the National Museums of Kenya. Although we proceeded from an institutional base, one of our goals in seeking to implement an optimized toolset for mobile humanities interpretation in East Africa is to make it easy and attractive for both institutional and grassroots adopters of projects to join in a regional, networked, mobile-first web project that invites an even greater public voice—or build their own independent humanities projects. Our hope for *MaCleKi* and other projects that follow is that they provide a forum to generate public conversation and debate about which places matter and why—insights that can guide the future direction of curating landscape.

The use of social media can enhance a project's ability to reach and engage its desired audience. Our project set up Twitter and Facebook accounts as well as a YouTube channel on which we added professionally produced clips that present various insights from the start-up period. (See Fig. 2.) As with *Cleveland Historical*, when we have shared the "Curating Kisumu" project on social media, we often linked directly to stories or video clips but almost always included an uploaded photo from the project as an illustration to attract greater attention. Beyond such strategies, to some degree social media can be optimized to attract a particular desired audience. For example, Facebook now enables a page manager to designate the parameters of the optimal audience. For *MaCleKi*, we selected a radius of 25 miles around Kisumu as the preferred audience. We also included a series of keywords such as "history" and "Kenya" that may enhance discoverability and push more people toward the project content itself. Likewise, on Twitter, we indicated the project's location as Kisumu and included "Kisumu, Kenya" and "history" in the profile description.

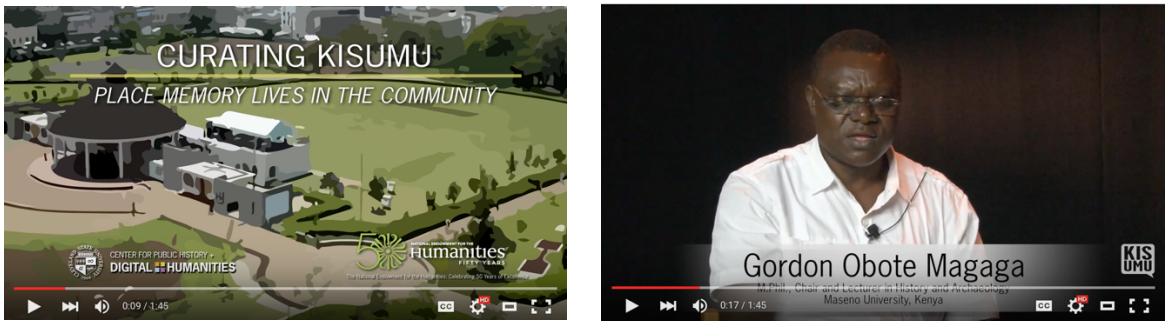


**Fig. 2.** Example from Curating Kisumu – YouTube.
https://www.youtube.com/watch?v=jvotcbcEtnU

We approached social media with the notion that it was not a silver bullet for building an audience. We learned to value the moments when a new user in Kenya followed us and relish the moments when a Kenyan viewer complimented or commented critically. The project has attracted a Twitter following that rather closely resembles the one suggested by the project's analytics. To date, over 60% of followers originate in Kenya. It is also an enthusiastic following, with regular retweets and positive comments. Anecdotally, we can report one particularly revealing example of the messy way in which social media sometimes interfaces with a digital humanities project. Soon after creating our Twitter account, we posted the *MaCleKi* story about the Kisumu port, in which the student authors referenced a widely circulated though not universally supported explanation of the origin of the city's name. In this version, Kisumu derives from the Dholuo word *kisuma*, meaning a trading place. When we linked this project story on Twitter, a Kisumu-based news organization reposted the story in full on its blog and linked to it on its Facebook page (with a link back to the original story, thankfully). Although our tweet was not directly engaged, the re-post generated ten "likes," and one very knowledgeable reader felt moved to offer a 908-word comment in which he disagreed with the name origin, offering his well-supported case for an alternative account. He did not comment on the overall project or even the story itself, other than to state that the authors should not be criticized for this singular point, but his taking the time to share his perspective provided an example of the kind of public engagement that results when viewers see a digital project as providing (or at least availing itself of) a forum rather than simply a presentation.

Although we got an earlier start on Twitter than Facebook in this project and thus have built a larger follower base in Kenya, we expect Facebook to become a larger boon in the long run because Kenya's Facebook users outnumber its Twitter users by a ratio of nearly six to one, according to a mid-2014 report by Digital Rand.[21] Indeed, Facebook is the dominant social network in Africa, and Facebook has moved aggressively to carve out a greater share of social media users on the continent by joining with several global wireless companies to launch Internet.org in 2013 in an effort to expand web access in Africa and Asia. Facebook also issued a lightweight version of its app and established an office in Johannesburg in 2015, and in late 2016 it will begin pushing a limited version of the Internet to fourteen sub-Saharan African countries

[21] Digital Rand, *State of Social Media in Kenya, Report 002* (2014), http://www.digitalrand.com/resources/reports/A002.pdf.

via satellite.[22] It appears that Facebook will continue to be an important, if controversial, presence in shaping online habits for the foreseeable future. Not only does this underscore the wisdom of understanding the relative impact that various social networks may offer a digital humanities project and how that does not fully mirror the first-world social media landscape, it also points to one of the added values of a project like "Curating Kisumu"—just as it offers an alternative to predominant but scarce and often narrowly conceived online presentations of history about East Africa, the project also pushes back against the potential channelization of online traffic toward Facebook even as it avails itself of the social media giant's publicity potential. However, trends certainly change, so project leaders would be wise to take advantage of as many social media platforms as they are able to maintain as all provide some boost to discoverability.

In sum, at present our concerns about audience are inseparable from our belief (drawn from experience) that audiences grow and evolve not only insofar as a project has committed guidance. Accordingly, seeking a community of users beyond Maseno University will provide another laboratory for more fully evaluating whether the conceptual process associated with *Curatescape* in the United States maps similarly in East African nations. Only by cultivating technological capacity and strong institutional partnerships to build content will we more fully identify how the digital humanities, mobile adoption, and community engagement work in tandem in this setting.

**Where Next? Curating East Africa**

From inception, our project team envisioned that "Curating Kisumu" was simply a first step—one of building capacity while studying results, identifying best practices, and planning next steps. Scaling a project beyond a single context, as this white paper has hopefully made clear, requires a range of considerations and careful planning, even if it is impossible to envision and plan for every eventuality. Our project began with and continues to embrace a commitment to creating a dynamic, living project. Just as *Cleveland Historical* became a widely used, deeply valued project that reaches hundreds of thousands of people annually only through ongoing content creation and outreach to the community, our initiative in East Africa embodies a similar commitment to continuing to add content, refine practices, and foster opportunities for linkages in Kisumu. With or without our pending implementation, we hope to continue cultivating the *MaCleKi | Curating Kisumu* project, not simply maintaining it. Ultimately its success may depend on finding support for creating the kind of re-architecting of the platform on which it runs to make the project as close to self-sustaining and as easy to integrate into the classroom as possible. We trust that emerging partnerships with the local museum and the county agency that coordinates educational and cultural activity in Kisumu will be only the beginning of a widening network of participants as the project becomes more known.

On the other hand, we also hope to make it easier for others elsewhere in the region to model additional projects on what we have started. We emerged from the start-up grant with an effective, successful model that shows at least one path toward a sustainable mobile-first

[22] Kurt Wagner, "Facebook is Opening Its First Office in Africa," *Re/code*, June 29, 2015, http://recode.net/2015/06/29/facebook-is-opening-its-first-office-in-africa/; Mark Scott, "Facebook Reaches Deal to Beam the Internet To Africa With a Satellite," *New York Times Bits*, October 5, 2015, http://bits.blogs.nytimes.com/2015/10/05/facebook-reaches-deal-to-beam-the-internet-to-africa-with-a-satellite/.

humanities project. Building an optimized platform that simplifies inputs and affords facile maintenance and updating will be another essential task before we likely see others follow Maseno University's lead. Our pending implementation will address this need for extensibility. If our envisioned "Curating East Africa" project is to succeed, we believe it is important to balance our continued collaboration in Kisumu with the initial addition of a single new partner. After careful consideration, we concluded that adding too many new partners during a possible implementation grant risks neglecting the need for some more close attention to how the project works in another East African setting. Although we originally intended, and still expect, to add further Kenyan partners, we decided that a regional networked mobile project would benefit from first building a second partnership elsewhere in the region. Accordingly, we have initiated a new partnership with the University of Dodoma in Tanzania, where one of our project advisors has long experience and close contacts that promise to create a similar rapport essential to a successful project expansion. Working in a second country as we develop the platform will create a firmer foundation for regional expansion than remaining only in Kenya. We expect that once the platform is rebuilt, we will see wider regional adoption both through our partners' connections and our ability to offer centralized hosting and independent adoption globally as a result of the free availability of the toolset via open-source repositories such as GitHub.

As noted earlier in this white paper, the next few years are critical in determining how or whether strong, interpretive, and engaging humanities content becomes widely accessible as African publics gravitate toward smartphones and as mobile penetration expands more fully across the both the physical landscape and social spectrum on the continent. Just as the rise of the digital age and the information economy have not assured the place of sound, well-sourced, and engagingly presented interpretations rooted in the humanities in the highly developed world, we should not assume that such values will arise as much of the African continent retraces first-world steps into a knowledge-driven society. This is, therefore, an important time for digital humanists to devise ways of redressing the continuing gap between mobile adoption and the spread of humanistic inquiry. If we are able to create an aggregated regional project in East Africa, such a project will go far toward enabling people to situate themselves in a broader world beyond their home, finding commonalities that everyday life in a single place does not always illuminate. At bottom, our goal is to empower the public to access sources of knowledge that they may connect to the places where they live and connect those places to a deeper understanding and engagement with the ways in which the past shapes the present. Rather than concentrating only on building a project that first-world adopters find attractive, we will achieve greater impacts by learning what they need to emerge and grow in settings that more closely typify wider swaths of the globe.